



SEQUENCE LISTING

<110> Hattori, Fumiyuki
Sugimura, Keijiro
Furuya, Mayumi

<120> Therapeutic Methods and Agents for Diseases Associated with
Decreased Expression of AOP-1 Gene or AOP-1

<130> 58777.000012

<140> 10/642,272

<141> 2003-08-18

<150> PCT/JP02/01358

<151> 2001-02-18

<150> JP 41003/2001

<151> 2001-02-16

<160> 30

<170> PatentIn version 3.3

<210> 1

<211> 1542

<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

<400> 4

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Ala Ala Cys Gly Arg Thr Ser Leu Thr Asn Leu Leu Cys Ser Gly Ser
 35 40 45

Ser Gln Ala Lys Leu Phe Ser Thr Ser Ser Ser Cys His Ala Pro Ala
 50 55 60

Val Thr Gln His Ala Pro Tyr Phe Lys Gly Thr Ala Val Val Asn Gly
 65 70 75 80

Glu Phe Lys Asp Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu Val
 85 90 95

Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu Ile
 100 105 110

Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys Glu
 115 120 125

Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp Ile
 130 135 140

Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Ala Leu
 145 150 155 160

Leu Ser Asp Leu Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu Leu
 165 170 175

Glu Gly Ser Gly Leu Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro Asn
 180 185 190

Gly Val Ile Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg Ser
 195 200 205

Val Glu Glu Thr Leu Arg Leu Val Lys Ala Phe Gln Tyr Val Glu Thr
 210 215 220

His Gly Glu Val Cys Pro Ala Asn Trp Thr Pro Asp Ser Pro Thr Ile
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Lys Pro Ser Pro Ala Ala Ser Lys Glu Tyr Phe Gln Lys Val Asn Gln
 245 250 255

<210> 5
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 <212> PRT
 <213> Rattus norvegicus

<400> 5

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Val Ala Ser Arg Arg Thr Cys Leu Thr Asp Met Leu Trp Ser Ala Cys
 35 40 45

Pro Gln Ala Lys Phe Ala Phe Ser Thr Ser Ser Ser Phe His Thr Pro
 50 55 60

Ala Val Thr Gln His Ala Pro His Phe Lys Gly Thr Ala Val Val Asn
65 70 75 80

Gly Glu Phe Lys Glu Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu
85 90 95

Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu
100 105 110

Ile Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys
115 120 125

Glu Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp
130 135 140

Ile Asn Thr Pro Ala Lys Asn Gly Gly Leu Gly His Met Asn Ile Thr
145 150 155 160

Leu Leu Ser Asp Leu Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu
165 170 175

Leu Glu Ser Ala Gly Ile Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro
180 185 190

Asn Gly Val Ile Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg
195 200 205

Ser Val Glu Glu Pro Leu Arg Leu Val Lys Ala Phe Gln Phe Val Glu
210 215 220

Thr His Gly Glu Val Cys Pro Pro Asn Trp Thr Pro Glu Ser Pro Thr
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Ile Lys Pro Ser Pro Thr Ala Ser Lys Glu Tyr Phe Glu Lys Val His
245 250 255

Gln

<210> 6
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<212> PRT

<213> Mus sp.

<400> 6

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Ala Ser Ala Ile Ser Arg Ser Ile Ser Ala Ser Thr Val Leu Arg Pro
20 25 30

Val Ala Ser Arg Arg Thr Cys Leu Thr Asp Ile Leu Trp Ser Ala Ser
35 40 45

Ala Gln Gly Leu Ser Ala Phe Ser Thr Ser Ser Ser Phe His Thr Pro
50 55 60

Ala Val Thr Gln His Ala Pro Tyr Phe Lys Gly Thr Ala Val Val Asn
65 70 75 80

Gly Glu Phe Lys Glu Leu Ser Leu Asp Asp Phe Lys Gly Lys Tyr Leu
85 90 95

Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr Phe Val Cys Pro Thr Glu
100 105 110

Ile Val Ala Phe Ser Asp Lys Ala Asn Glu Phe His Asp Val Asn Cys
115 120 125

Glu Val Val Ala Val Ser Val Asp Ser His Phe Ser His Leu Ala Trp
130 135 140

Ile Asn Thr Pro Arg Lys Asn Gly Gly Leu Gly His Met Asn Ile Thr
145 150 155 160

Leu Leu Ser Asp Ile Thr Lys Gln Ile Ser Arg Asp Tyr Gly Val Leu
165 170 175

Leu Glu Ser Ala Gly Ile Ala Leu Arg Gly Leu Phe Ile Ile Asp Pro
180 185 190

Asn Gly Val Val Lys His Leu Ser Val Asn Asp Leu Pro Val Gly Arg
195 200 205

Ser Val Glu Glu Thr Leu Arg Leu Val Lys Ala Phe Gln Phe Val Glu

210 215 220
 Thr His Gly Glu Val Cys Pro Ala Asn Trp Thr Pro Glu Ser Pro Thr
 225 230 235 240
 Ile Lys Pro Ser Pro Thr Ala Ser Lys Glu Tyr Phe Glu Lys Val His
 245 250 255

Gln

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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Forward Primer

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<210> 8
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Reverse Primer

<400> 8
 ttcatgtggc ccaaacca 18

<210> 9
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Probe

<400> 9
 tcttgcttgg atcaacacac caagaaag 28

<210> 10
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Forward Primer

<400> 10

ccctctgctt gctgatgtga ct

22

<210> 11

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Reverse Primer

<400> 11

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<211> 29

<212> DNA

<213> Artificial Sequence

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<223> Probe

<400> 12

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29

<210> 13

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Forward Primer

<400> 13

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19

<210> 14

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Reverse Primer

<400> 14

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18

<210> 15

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Probe

<400> 15

tggagacctg ggcaatgtgg ctg

23

<210> 16

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Forward Primer

<400> 16

acgggtgctc agcctcc

17

<210> 17

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Reverse Primer

<400> 17

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<210> 18

<211> 25

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<210> 19

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Forward Primer

<400> 19

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tgccaccacca actgcttag 19

<210> 25
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 <223> Reverse Primer

<400> 25
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<210> 26
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<220>
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<400> 26
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<210> 27
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 <212> DNA
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 gtctatagga aaccaataaa gtattagga cagtga 877

<210> 28
 <211> 198
 <212> PRT
 <213> Rattus norvegicus

<400> 28

Met Ala Ser Gly Asn Ala His Ile Gly Lys Pro Ala Pro Asp Phe Thr
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Gly Thr Ala Val Val Asp Gly Ala Phe Lys Glu Ile Lys Leu Ser Asp
 20 25 30

Tyr Arg Gly Lys Tyr Val Val Leu Phe Phe Tyr Pro Leu Asp Phe Thr
 35 40 45

Phe Val Cys Pro Thr Glu Ile Ile Ala Phe Ser Asp His Ala Glu Asp
 50 55 60

Phe Arg Lys Leu Gly Cys Glu Val Leu Gly Val Ser Val Asp Ser Gln
 65 70 75 80

Phe Thr His Leu Ala Trp Ile Asn Thr Pro Arg Lys Glu Gly Gly Leu
 85 90 95

Gly Pro Leu Asn Ile Pro Leu Leu Ala Asp Val Thr Lys Ser Leu Ser
 100 105 110

Gln Asn Tyr Gly Val Leu Lys Asn Asp Glu Gly Ile Ala Tyr Arg Gly
 115 120 125

Leu Phe Ile Ile Asp Ala Lys Gly Val Leu Arg Gln Ile Thr Val Asn
 130 135 140

Asp Leu Pro Val Gly Arg Ser Val Asp Glu Ala Leu Arg Leu Val Gln
 145 150 155 160

Ala Phe Gln Tyr Thr Asp Glu His Gly Glu Val Cys Pro Ala Gly Trp
 165 170 175

Lys Pro Gly Ser Asp Thr Ile Lys Pro Asn Val Asp Asp Ser Lys Glu
 180 185 190

Tyr Phe Ser Lys His Asn
 195

<210> 29
 <211> 560
 <212> DNA
 <213> Homo sapiens

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<210> 30
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 <212> PRT
 <213> Homo sapiens

<400> 30

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 20 25 30

Trp Gly Ser Ile Lys Gly Leu Thr Glu Gly Leu His Gly Phe His Val
 35 40 45

His Glu Phe Gly Asp Asn Thr Ala Gly Cys Thr Ser Ala Gly Pro His
 50 55 60

Phe Asn Pro Leu Ser Arg Lys His Gly Gly Pro Lys Asp Glu Glu Arg
65 70 75 80

His Val Gly Asp Leu Gly Asn Val Thr Ala Asp Lys Asp Gly Val Ala
85 90 95

Asp Val Ser Ile Glu Asp Ser Val Ile Ser Leu Ser Gly Asp His Cys
100 105 110

Ile Ile Gly Arg Thr Leu Val Val His Glu Lys Ala Asp Asp Leu Gly
115 120 125

Lys Gly Gly Asn Glu Glu Ser Thr Lys Thr Gly Asn Ala Gly Ser Arg
130 135 140

Leu Ala Cys Gly Val Ile Gly Ile Ala Gln
145 150